

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Date	Comment	I&AP	Response	Respondent
<b>Abstraction/Extraction</b>				
Thu 2024/08/08	Hello, please register me as an IAP. I live on the Doring River and am affected by any further abstraction that takes place from the system. Please communicate with me on above email address.	A Mitchell	You are hereby registered as an Interested and Affected Party (I&AP) in the environmental assessment process.	EnviroAfrica
Sat 2024/09/07	Our property is bordered to the east by the Riet River, into which the Houdenbek and Winkelhaak Rivers flow. Any disruption to the flow of the Houdenbek River and its catchment will have a direct impact on the Riet River, negatively impacting on this important water resource for us and others downstream of the river and all the natural systems and creatures that rely on it. We rely on the permanent water holes of the Riet River as our only source of water. Until the very recent extreme weather, the Riet River had not flowed for ten years, not even in winter. Twenty years ago, before the expansion of agriculture and dams in the catchment area, it flowed all year round.	J Buckley	<p>It is acknowledged that the Houdenbek River, into which the Toeka Dam will abstract water, is a sub-catchment of the Riet River system. Changes within its flow regime can influence the downstream flow of the Riet River. However, the Water Use Licence specifically authorises abstraction only under high-flow or flood conditions, ensuring that no base or low flows are impacted. This is a critical protection for permanent pools and ecosystems downstream.</p> <p>The Water Use Licence includes several safeguards to protect downstream flow:</p> <ul style="list-style-type: none"> <li>• Abstraction is only allowed when the river is in flood and must stop entirely during dry or base-flow conditions.</li> <li>• A minimum flow threshold must be met before pumping can begin, ensuring that flows adequate to support the Ecological Reserve and downstream users are maintained at all times.</li> <li>• A flow monitoring and compliance system must be installed, and annual audits are required to verify sustainable operation.</li> </ul> <p>A major focus of the Water Use Licence is to ensure that natural systems, permanent pools, and dependent fauna are protected by maintaining the Ecological Water Requirements (EWR). Additionally, the licence includes provisions for rehabilitation, sediment control, and ecological monitoring to prevent further degradation of water quality or habitat.</p>	EnviroAfrica

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Sat 2024/09/07	In the previous EIA and in the responses to the participants, the concerns about the extraction of water from the river and the effects downstream, were 'mitigated' by explaining that only 'winter surplus water would be abstracted (sic)'. I do not accept the premise that the water collected in the dams will be "winter surplus", since the catchment is not now providing sufficient water to cause the flow in the Riet River.	J Buckley	<p>We understand and acknowledge your position that the use of the term "winter surplus" may not reflect current hydrological realities, particularly in light of long-term drought conditions, climate variability, and observed diminished flows in the Riet River, even during historically wetter seasons. In response to these concerns, the issued Water Use Licence (WUL No. 01/E21D/AB/9699) includes:</p> <ul style="list-style-type: none"> <li>○ Strict abstraction conditions: Water may only be taken during verified winter high-flow events, with defined flow thresholds that must be exceeded.</li> <li>○ Real-time monitoring of upstream and downstream flows, enforced through metering, telemetry, and reporting requirements.</li> <li>○ No abstraction permitted during baseflow or low-flow periods, regardless of season, to protect downstream users and ecological systems.</li> </ul> <p>Should flood-level flows not occur in a given year, no water may be abstracted, and the dam must remain unfilled. These provisions are in place to ensure that abstraction is truly conditional on surplus availability, not based on assumptions of past seasonal patterns.</p> <p>Your objection, including your specific critique of the "winter surplus" premise, has been formally recorded in the Comments and Responses Report and will be addressed within the hydrological and cumulative impact assessments of the Environmental Impact Report (EIR).</p>	EnviroAfrica
Fri 2024/09/13	I am a downstream landowner of the farm Katbakkies 139 in the vicinity of the Riet river and object to both the proposed dams that are in planning. These dams are in the catchment area of the Riet River. The extraction of water from the Riet River is already at unacceptable levels and official papers from DWAFF in the last decade has stipulated that no further abstraction from said river should	Andries van der Walt	You have been formally registered as an Interested and Affected Party (I&AP) in the environmental assessment process for the proposed Toeka and Harmony Dam developments. We acknowledge your objection to both proposed dams, submitted in your capacity as a downstream landowner of the farm Katbakkies 139, located in the vicinity of the Riet River.	EnviroAfrica

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	be allowed. Please register me as a concerned and affected party.		<p>The project is subject to Water Use Licence No. 01/E21D/AB/9699, which includes strict provisions aimed at protecting downstream users such as yourself:</p> <ul style="list-style-type: none"> <li>○ No abstraction is allowed from baseflows or during low-flow periods.</li> <li>○ Abstraction is only permitted during verified winter flood events, based on flow thresholds established through real-time monitoring.</li> <li>○ Abstraction volumes are limited, and the licence requires ongoing compliance reporting to ensure protection of downstream flow integrity.</li> </ul> <p>Your objection has been formally noted in the Comments and Responses Report, and your concern about downstream water availability and compliance with historical policy restrictions will be addressed in the Environmental Impact Report (EIR). It will also be submitted to the relevant regulatory authorities for review.</p>	
Thur 2024/09/12	Please register me as an interested and affected party for the projects described below	Nik Wullschleger	You are hereby registered as an Interested and Affected Party (I&AP) in the environmental assessment process.	EnviroAfrica
<b>Water Monitoring Plan</b>				
Sat 2024/09/07	I request that you describe the monitoring plan and mechanical systems that will be put in place, both up and down stream, to ensure that water use is monitored and that water is being released to ensure water is not cut off by the proposed dam. Please explain exactly how, at what point and through which process, any rainfall resulting in runoff is declared surplus? I assume that to make a rational decision you would need to already be in possession of water flow statistics. Please provide these and describe how you are taking the effect of climate change into account in this water-stressed area.	J Buckley	<p>Monitoring Plan and Mechanical Systems</p> <p>In accordance with the conditions of the Water Use Licence (WUL No. 01/E21D/AB/9699), a detailed monitoring and compliance programme is mandatory.</p> <p>The following systems will be implemented:</p> <p>Upstream and Downstream Flow Measurement:</p> <ul style="list-style-type: none"> <li>○ A continuous flow-monitoring mechanism will be installed in the Houdenberg River at the abstraction point.</li> <li>○ This system will track real-time flow conditions to determine whether abstraction thresholds have been met.</li> <li>○ The system must be calibrated every five years by a qualified professional, as required under Special</li> </ul>	EnviroAfrica

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			<p>Condition 9.1 of the WUL. Measuring Devices:</p> <p>Calibrated flow meters and depth gauges will be installed at key points in both dams to track water levels, volumes abstracted, and discharge patterns. These devices must be maintained and independently audited annually, with records submitted bi-annually to the Department of Water and Sanitation.</p> <p>Release Infrastructure:</p> <ul style="list-style-type: none"> <li>○ The Toeka Dam will include outlet works that allow for the release of stored water.</li> <li>○ This infrastructure must be capable of releasing the full storage volume within 30 days if required by the DWS or to meet downstream flow requirements (WUL Appendix III, Condition 5.10).</li> </ul> <p>How “Surplus Water” is Declared “Surplus water” is not based on a general seasonal assumption but is empirically defined as river flow that exceeds:</p> <ul style="list-style-type: none"> <li>○ The Ecological Water Requirement (EWR) or Instream Flow Requirement (IFR).</li> <li>○ The existing lawful water use volumes of other users downstream.</li> <li>○ This determination is made using a pre-determined flow threshold, expressed as litres per second (L/s), for each month. For example, in July (a high-flow month), the flow in the Houdenberg River must exceed 773 L/s before any abstraction to the dam is permitted.</li> <li>○ Only once these conditions are met, and automated sensors confirm threshold exceedance, may water be abstracted for dam storage.</li> </ul> <p>Hydrological Data and Flow Statistics.</p>	
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			<p>The hydrological model and design are based on flow data and runoff modelling for Quaternary Catchment E21D, as documented in:</p> <ul style="list-style-type: none"> <li>○ The Preliminary Design Report (2018) by Sarel Bester Consulting Engineers.</li> <li>○ The Freshwater Report (2018) by Watsan Africa.</li> </ul> <p>These studies considered the Mean Annual Runoff (MAR) of 45.4 million m<sup>3</sup> for the catchment and established the monthly flow distribution, including IFRs that protect the river's ecological integrity. The total licensed abstraction volume (965,000 m<sup>3</sup>/year) represents less than 3% of MAR, making the abstraction level hydrologically conservative under average conditions.</p> <p>Climate Change Consideration</p> <p>The project recognises that climate change introduces greater variability and uncertainty in rainfall and runoff. The following measures are in place to address this:</p> <ul style="list-style-type: none"> <li>○ No abstraction is allowed during low-flow conditions, which are expected to become more frequent under a drying climate scenario.</li> <li>○ The WUL is valid for 10 years but is reviewable every two years, allowing for adjustments based on hydrological shifts or updated flow data.</li> <li>○ The licensee is required to investigate and implement water-efficient technologies (WUL Appendix II, Condition 6), and to monitor and adapt abstraction practices accordingly. The Monitoring Plan will form part of the EIA process.</li> </ul>	
Sat 2024/09/07	In April 2012, a Final Project Report was completed by the Department of Water Affairs Chief Directorate. Here are a few points from the Report:	J Buckley	Noted.	EnviroAfrica
<b>Water Use Licence</b>				
Sat 2024/09/07	The Houdenbek river feeds into the Rietrivier. - there is extensive agriculture in this catchment area and the	J Buckley	Protecting this baseflow — and the ecological and social systems it supports — is a central focus of the licensing and	EnviroAfrica

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	<p>groundwater use exceeds recharge, thus groundwater levels have dropped alarmingly. Groundwater contributes significantly to base river flow. There is no account for the downstream ecological impact of restricted flow in the river. It will also have a direct impact on farms and jobs through the area in which the Riet River flows. There is no account for the impact on the wildlife and river life.</p>		<p>impact assessment process for the proposed Toeka and Harmony Dams. The Freshwater Impact Assessment and Water Use Licence (WUL No. 01/E21D/AB/9699) both recognise the role of groundwater in maintaining ecological baseflows. To safeguard this:</p> <ul style="list-style-type: none"> <li>• The WUL prohibits abstraction during low-flow (baseflow) conditions, thereby reducing pressure on both surface and groundwater systems.</li> <li>• Abstraction is allowed only during verified high-flow periods when surplus runoff is present, as confirmed by real-time flow monitoring systems.</li> </ul> <p>While the project is not directly abstracting groundwater, the WUL includes:</p> <ul style="list-style-type: none"> <li>• Conditions requiring ongoing hydrological monitoring, including the installation of gauging and metering infrastructure to measure the timing and volume of all abstractions.</li> <li>• Future project phases may involve coordination with the Koue Bokkeveld Water User Association and regional water authorities to assess cumulative groundwater stress across the catchment.</li> </ul> <p>The WUL includes binding requirements to ensure that the development does not compromise downstream ecological or agricultural resilience:</p> <ul style="list-style-type: none"> <li>• An Ecological Water Requirement (EWR) — based on monthly flow thresholds — is in place and must be satisfied before any abstraction can occur.</li> <li>• The Freshwater Specialist Report assessed aquatic habitat conditions and flagged the cumulative risks of abstraction, which led to conservative volume limits and strict compliance conditions being imposed.</li> <li>• The EMPr (Environmental Management Programme) will include a biodiversity monitoring component,</li> </ul>	
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			<p>focusing on riparian and aquatic species health, erosion control, and vegetation rehabilitation.</p> <p>Additionally, the licence allows for auditing and adaptive review every two years, enabling the Department of Water and Sanitation to amend conditions if evidence emerges of downstream degradation or socioeconomic harm.</p> <p>Mitigation measures include:</p> <ul style="list-style-type: none"> <li>• Buffer zones and rehabilitation of riparian areas.</li> <li>• Prevention of further habitat loss during construction and operation.</li> <li>• Control of alien vegetation to support native biodiversity.</li> <li>• Requirements for a Plant Species Plan and ongoing environmental monitoring.</li> </ul> <p>The riverine and associated ecosystems will be monitored throughout the project lifecycle, and any proven impairment will require corrective action from the licensee, including potential compensation where impacts to water users or biodiversity are identified.</p>	
<b>Vegetation Clearance</b>				
Sat 2024/09/07	We object to the clearance of the indigenous vegetation for the purposes of the proposed agricultural lands and dam. This is in an area where there are sensitive plants, reptiles and mammals, which are already under huge stress from the agricultural development in the area.	J Buckley	<p>The Botanical Impact Assessment conducted for this project confirms that the area historically supported Western Kouebokkeveld Shale Fynbos, a vegetation type listed as Least Threatened under the National Biodiversity Assessment, but which nonetheless contains locally sensitive species. While the immediate project area has been transformed by prior cultivation, there are pockets of naturally re-established indigenous vegetation and faunal habitat that remain ecologically valuable.</p> <p>The Freshwater and botanical specialists also noted that nearby riparian corridors and rocky outcrops may provide habitat for range-restricted reptile species and small mammals, which are particularly vulnerable to habitat loss</p>	EnviroAfrica

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			<p>and fragmentation in agricultural landscapes. To mitigate these risks:</p> <ul style="list-style-type: none"> <li>• The development footprint has been carefully adjusted to avoid intact habitat wherever possible and to focus on areas that are already highly modified or degraded.</li> <li>• A Plant Species Plan will be developed to identify and, where feasible, relocate species of conservation concern prior to clearance.</li> <li>• Construction activities will be managed under an approved Environmental Management Programme (EMPr) that includes vegetation clearing protocols, faunal rescue procedures, and erosion control measures to prevent further degradation of natural areas.</li> <li>• A rehabilitation plan will be implemented for disturbed areas, including the dam embankment and temporary construction zones, to restore ecological structure and function.</li> <li>• Alien invasive species control will be prioritised to ensure indigenous vegetation has the opportunity to regenerate in buffer and setback areas.</li> <li>• The project will also include ongoing biodiversity monitoring, with adaptive management measures triggered if negative trends are detected.</li> </ul> <p>All vegetation clearance will be subject to:</p> <ul style="list-style-type: none"> <li>• Environmental authorisation under the National Environmental Management Act (NEMA).</li> <li>• Compliance with Water Use Licence conditions, which include setbacks from watercourses and wetland areas.</li> <li>• Ongoing oversight by environmental control officers and reporting to relevant authorities.</li> </ul>	
Thur 2024/09/05	We also object to the clearance of the indigenous vegetation for the purposes of the proposed agricultural lands and dam. This is in an area where there are sensitive	Dr David A.H. Buckley	Specialist studies undertaken as part of the Environmental Impact Assessment (EIA) have confirmed that, although much of the immediate project area has been previously disturbed, there are remaining patches of naturally re-	EnviroAfrica



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	plants, reptiles and mammals, which are already under huge stress from the agricultural development in the area.		<p>established indigenous vegetation and habitat corridors, particularly along rocky outcrops and riparian zones that are ecologically valuable and may support:</p> <ul style="list-style-type: none"> <li>- Range-restricted and stress-sensitive fauna, including reptiles and small mammals.</li> <li>- Plant species of conservation concern, some of which may not be listed in desktop screening tools but are known from the broader region.</li> </ul> <p>In response to these sensitivities, the following mitigation measures have been proposed:</p> <ul style="list-style-type: none"> <li>- Avoidance of intact habitat where feasible through development layout refinement.</li> <li>- A Plant Species Plan to guide the identification and relocation of species of concern;</li> <li>- Implementation of an Environmental Management Programme (EMPr) including: <ul style="list-style-type: none"> <li>▪ Faunal rescue procedures.</li> <li>▪ Controlled clearing protocols.</li> <li>▪ Rehabilitation of disturbed areas.</li> <li>▪ Alien invasive species management.</li> </ul> </li> <li>- Ongoing biodiversity monitoring and adaptive management should negative trends be observed post-construction.</li> <li>- All vegetation clearance is subject to: <ul style="list-style-type: none"> <li>○ Environmental Authorisation under the National Environmental Management Act (NEMA).</li> <li>○ Compliance with Water Use Licence conditions, which include ecological buffer zones.</li> <li>○ Oversight by an Environmental Control Officer (ECO), who will ensure adherence to all approved mitigation measures and legal conditions.</li> </ul> </li> </ul>	
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Water Resource Management				
Sat 2024/09/07	<p>Koue Bokkeveldd IUA, which has 2% of the population accounts for 18% of the water usage in the WMA"</p> <p>"No large dams or large water wier development on the mainstream of the Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers"</p> <p>"No new licenses for water abstraction in summer (low flow) period of the year in the mainstream of the Olifants upstream of the Clanwilliam Dam, "Koue Bokkeveldd IUA, which has 2% of the population accounts for 18% of the water usage in the WMA"</p> <p>"No large dams or large water wier development on the mainstream of the Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers"</p> <p>"No new licenses for water abstraction in summer (low flow) period of the year in the mainstream of the Olifants upstream of the Clanwilliam Dam, Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers."</p> <p>" The Houdenbeks is fully developed"</p>	J. Buckley	<p>The Koue Bokkeveld Irrigation Use Area (IUA), despite representing only approximately 2% of the population within the Water Management Area (WMA), accounts for a disproportionately high share of total water usage, specifically 18%. This situation has been acknowledged in the Olifants-Doorn Catchment Management Strategy and is indicative of the region's historically intensive agricultural development and the corresponding irrigation demands associated with it.</p> <p>While this highlights the importance of cautious water management in the region, it is also the reason why water use in the area is now subject to strict regulation, quantified limits, and continuous monitoring, especially under the revised Water Use Licence framework. It is important to clarify that:</p> <ul style="list-style-type: none"> <li>- The proposed Toeka and Harmony Dams are not located on the mainstem of the Riet or Doring Rivers, but on tributaries within the Houdenbek catchment.</li> <li>- The Water Use Licence issued for these dams explicitly prohibits any summer or low-flow abstraction; abstraction is only permitted during verified high-flow (winter flood) conditions, and only when all ecological and downstream flow thresholds are satisfied.</li> </ul> <p>While the Houdenbek River is acknowledged in prior assessments as highly utilised, the issuance of the Water Use Licence (WUL No. 01/E21D/AB/9699) was based on updated hydrological modelling that:</p> <ul style="list-style-type: none"> <li>- Confirms that there remains a small, carefully managed surplus of winter flow that can be abstracted without undermining ecological reserves or downstream use rights.</li> </ul>	EnviroAfrica

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			<ul style="list-style-type: none"> <li>- Limits the total abstraction volume from both proposed dams to less than 3% of the Mean Annual Runoff (MAR) in the quaternary catchment.</li> <li>- Requires real-time flow monitoring, full compliance reporting, and adaptive management provisions.</li> </ul> <p>This ensures that the Houdenbek catchment, although under pressure, is not subject to further over-exploitation under the conditions of this development. the proposed dams and agricultural development have been specifically designed and licensed to align with the most recent and restrictive water management policies in the WMA. The licensing authority — the Department of Water and Sanitation — has issued authorisation only under non-summer, non-baseflow abstraction conditions, with enforced compliance measures to protect both ecological systems and other water users across the catchment.</p>	
<b>Accountability and Oversight</b>				
Sat 2024/09/07	<p>Please explain how DWAF can be completely ignored and ensure that they are asked to comment specifically on these points. I request that the following experts be appointed and that new studies be done – not just digging up the previous ones:</p> <ul style="list-style-type: none"> <li>▪ Botanical specialist</li> <li>▪ Freshwater specialist</li> <li>▪ Herpetology specialist (In the previous study the effect on reptiles is glossed over. Note that this general area has tent tortoises and Karoo dwarf tortoises (and angulates). There are also red adders and armadillo girdled lizards, all of which are worthy of a 'search and rescue' attempt should this development go ahead.)</li> <li>▪ Heritage specialist</li> </ul>	J. Buckley	<p>Contrary to the suggestion that DWAF/DWS has been ignored, we confirm that the Department of Water and Sanitation is actively involved in this project through the issuance of a Water Use Licence (WUL No. 01/E21D/AB/9699). The WUL, issued on 7 November 2019, is the product of direct technical review by DWS officials and was granted after submission of:</p> <ul style="list-style-type: none"> <li>• A detailed hydrological model and flow analysis.</li> <li>• A Freshwater Impact Assessment (Watsan Africa, dated 2018).</li> <li>• A Preliminary Design Report and associated engineering calculations.</li> <li>• Confirmation of compliance with instream flow requirements (IFRs) and ecological reserve protection.</li> </ul> <p>Should there be additional concerns or new ecological data arising from the updated EIA process, the DWS will be</p>	EnviroAfrica

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			<p>formally re-engaged for comment and review. Your request for their involvement on specific downstream flow and ecological concerns will be specifically communicated. The following specialist studies have been undertaken to inform the environmental assessment to date:</p> <p>Botanical Assessment: Report title: Botanical Assessment – Houdenberg Dams, Koue Bokkeveld, Consultant: Dr. Dave MacDonald: Date March 2019</p> <p>This study assessed vegetation condition, conservation value, and potential impacts, and made recommendations for footprint minimisation and habitat rehabilitation.</p> <p>Freshwater Impact Assessment: Report title: Freshwater Assessment – Toeka Agriculture, Consultant: Watsan Africa: Date: August 2018</p> <p>This assessment examined the ecological condition of aquatic features, cumulative hydrological pressures, and recommended abstraction limits.</p> <p>Heritage Impact Assessment: Report title: HIA – Toeka Instream Dam near Ceres, Consultant: Jonathan Kaplan, Date: October 2024</p> <p>It identified stone-walled features and made recommendations for heritage avoidance and permitting under the NHRA.</p> <p>These studies formed the basis for regulatory decisions and environmental management conditions, including the terms of the WUL. The reports will be updated as part of the EIA process.</p>	
Thur 2024/09/26	NOTIFICATION OF INTENT TO DEVELOP: PROPOSED CONSTRUCTION OF HARMONY INSTREAM DAM ON FARM HOUDENBEK 415, EAST OF OP DIE BERG ON	HWC	Noted.	EnviroAfrica

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	<p>THE R304, CERES, PRINCE ALFRED HAMLET, SUBMITTED IN TERMS OF SECTION 38(1) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999) The matter above has reference. Heritage Western Cape is in receipt of your application for the above matter received. This matter was discussed at the Heritage Officers Meeting held on 19 September 2024. You are hereby notified that, since there is reason to believe that the proposed construction of harmony instream dam on Farm Houdenberg 415, East of Op Die Berg on The R304, Ceres, Prince Alfred Hamlet, will impact on heritage resources, HWC requires that a Heritage Impact Assessment (HIA) that satisfies the provisions of Section 38(3) of the NHRA be submitted. Section 38(3) of the NHRA provides 3). The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:</p> <ul style="list-style-type: none"> <li>(a) The identification and mapping of all heritage resources in the area affected.</li> <li>(b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7.</li> <li>(c) An assessment of the impact of the development on such heritage resources.</li> <li>(d) An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;</li> <li>(e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;</li> <li>(f) If heritage resources will be adversely affected by the proposed development. The consideration of alternatives, and</li> <li>(g) plans for mitigation of any adverse effects during and</li> </ul>			
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	<p>after the completion of the proposed development (Our emphasis)</p> <p>This HIA must, in addition, have specific reference to the following:</p> <ul style="list-style-type: none"> <li>• Archaeological Impact Assessment</li> <li>• Palaeontological Impact Assessment</li> </ul> <p>The HIA must have an overall assessment of the impacts to heritage resources which are not limited to the specific studies referenced above.</p> <p>The required HIA must have an integrated set of recommendations.</p> <p>The comments of relevant registered conservation bodies, all Interested and Affected parties, and the relevant Municipality must be requested and included in the HIA, where provided.</p> <p>Proof of these requests must be supplied. If applicable, applicants are strongly advised to review and adhere to the time limits contained in the Standard Operational Procedure (SOP) between DEADP and HWC.</p> <p>The SOP can be found using the following link: <a href="http://www.hwc.org.za/node/293">http://www.hwc.org.za/node/293</a>. Kindly take note of the HWC meeting dates and associated agenda closure date in order to ensure that comments are provided within as Reasonable time and that these times are factored into the project timeframes. HWC reserves the right to request additional information as required.</p>			
Inclusive Stakeholder engagement				
Sat 2024/09/07	As we were not advised of this application, I assume no other neighbours, previous participants and those affected with properties along the river, were either. Please send the notices directly to all these people (you have their email	J. Buckley	We confirm that the first round of the Public Participation Process (PPP) was undertaken as part of the project's earlier phases. During this process, all Interested and Affected Parties (I&APS) who registered, submitted	EnviroAfrica

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	addresses from last time) and allow them time to register their participation in the process.		<p>comments, or were identified through stakeholder mapping were formally recorded.</p> <p>As the project proceeds into the Scoping and Environmental Impact Assessment (EIA) phase, all registered I&amp;APS will be notified of the continuation of the process. They will receive:</p> <ul style="list-style-type: none"> <li>▪ Direct communication via email.</li> <li>▪ Information on the availability of the reports or a copy of the reports.</li> <li>▪ An invitation to comment.</li> </ul> <p>In addition to this, advertisements and site notices were placed (a copy of which is attached as an Appendix) to inform any new interested parties of the opportunity to register and participate.</p>	
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### Persistent Environmental Concerns

Sat 2024/09/07	This development was proposed in 2019 and vigorously opposed. It is disappointing that we are seeing another attempt to get it passed. I urge a thorough and transparent reassessment of the project's viability and environmental implications.	J. Buckley	<ul style="list-style-type: none"> <li>▪ As part of the current Scoping and Environmental Impact Assessment (EIA) process, the project is being subjected to a comprehensive re-evaluation that includes:</li> <li>▪ A full public participation process.</li> <li>▪ A reassessment of environmental, social, and cumulative impacts in line with current conditions and policies.</li> <li>▪ Additionally, we can confirm that all comments received are being reviewed and considered in the updated environmental documentation.</li> <li>▪ The Department of Water and Sanitation has also issued a Water Use Licence, which is subject to strict conditions and ongoing compliance monitoring, but this does not exempt the project from full environmental scrutiny.</li> </ul>	EnviroAfrica
Sat 2024/09/07	I can report that there are a large number of near-water insects from various orders and families. There are many species of dragonflies of the families: Sylestidae, Coenagrionidae (Masai Sprite, Hagen's Sprite), Anisoptera (Common Thorntail), Aeshnidae (Blue Emperor	Valentin Tikhonov	<p>Your contribution will be:</p> <ul style="list-style-type: none"> <li>▪ Shared with the faunal and freshwater specialists for potential field verification.</li> <li>▪ Included in the Comments and Responses Report.</li> </ul>	EnviroAfrica

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	and Friendly Hawker), Libellulidae (about 10 species). Of the praying mantises found here are: Flower Mantid, Boxer Mantid, Common Green Mantid, Delicate Mantid, Marbled Mantid, Ground Mantid, Stick Mantid and Coneheaded Mantid. There are a large number of species of Grasshoppers and Locuts (Orthoptera), such as Foam Grasshopper, Elegant Grasshopper, Common Stick Grasshopper, Green Tree Locust, Brown Locust, Garden Locust and Blue-wing. Quite numerous Water Bugs: Pygmy water boatmen, Common Beckswimmer, Stout Beckswimmer, Flat Saucer Bugs, Water Stick Insects and Common Water Scorpion.		<ul style="list-style-type: none"> <li>Used to inform biodiversity sensitivity mapping and appropriate mitigation or conservation measures in the Environmental Management Programme (EMPr).</li> </ul>	
Sat 2024/09/07	This area is home to unique Karoo endemics from the order Mantophasmatodea: Jade Heel-walker ( <i>Viridiphasma clanwilliamense</i> ), Namaqualand Heel-walker ( <i>Karooophasma biedouwense</i> ) and Fynbos Heel-walker ( <i>Lobatophasma redelinghuysense</i> ).	Valentin Tikhonov	<p>This information has been:</p> <ul style="list-style-type: none"> <li>Formally recorded in the Comments and Responses Report.</li> <li>Shared with the faunal specialist team to evaluate the likelihood of suitable habitat within or adjacent to the development footprint.</li> <li>Flagged for inclusion in the biodiversity sensitivity analysis and mitigation planning within the Environmental Impact Report (EIR) and Environmental Management Programme (EMPr).</li> </ul>	EnviroAfrica
Sat 2024/09/07	I have received information that this area is threatened with major anthropogenic interference, namely the creation of dams on a small river flowing here, the floodplain of which, together with small lakes, makes up a significant part of the territory with the existing original water and near-water biocomplexes. Any change by a person of natural conditions leads to a violation of the ecology of plant and animal species living here, and to a deterioration in the state of biodiversity. The creation of dams on the river upstream will lead to the disappearance of the aquatic habitat in the Kleine Cederberg nature reserve, which is part of the Swartruggens Conservancy, the death of representatives of the aquatic flora and fauna, which will affect the entire ecosystem of the region, will have a negative impact on the river system, ecological	Valentin Tikhonov	<p>The proposed project is subject to strict conditions under the Water Use Licence (WUL No. 01/E21D/AB/9699), including:</p> <ul style="list-style-type: none"> <li>Abstraction only during confirmed winter high flow (flood) events.</li> <li>No abstraction during dry or baseflow periods, to preserve ecological functions.</li> <li>Mandatory flow monitoring and compliance auditing, enforced by the Department of Water and Sanitation.</li> <li>Compliance with the National Environmental Management Act (NEMA), including oversight by environmental authorities and monitoring by an independent Environmental Control Officer (ECO).</li> </ul> <p>Additionally, a Freshwater Impact Assessment and Botanical Assessment have been undertaken to evaluate and mitigate</p>	EnviroAfrica



## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	environment habitats of fish, amphibians, birds and plants not only in the designated region, but also in the surrounding areas hundreds of kilometers downstream.		<p>potential biodiversity loss. These studies inform the project's Environmental Management Programme (EMPr), which includes:</p> <ul style="list-style-type: none"> <li>▪ Habitat avoidance and buffer zones.</li> <li>▪ Erosion control and alien invasive species management.</li> <li>▪ Biodiversity monitoring with adaptive response mechanisms.</li> </ul> <p>Your comment regarding the loss of aquatic habitats, potential species displacement, and cumulative downstream impacts has been formally recorded and will be:</p> <ul style="list-style-type: none"> <li>▪ Included in the Comments and Responses Report.</li> <li>▪ Reviewed by the relevant freshwater and biodiversity specialists.</li> <li>▪ Considered in the final Environmental Impact Report (EIR), particularly in the cumulative impact and ecological integrity sections.</li> </ul>	
<b>Water supply concern</b>				
Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I am concerned about the project's impact on our water supply.	Bruce Johnson	<p>You have been formally registered as an Interested and Affected Party (I&amp;AP) for the proposed Toeka Dam, pipeline, and associated agricultural development. Water availability and downstream user impacts are key considerations in both the Environmental Impact Assessment (EIA) process and the conditions of the existing Water Use Licence (WUL No. 01/E21D/AB/9699). As part of your registration, you will receive:</p> <ul style="list-style-type: none"> <li>▪ Notification of the availability of the Draft Scoping and EIA Reports.</li> <li>▪ Opportunities to comment on all key documents;</li> </ul>	EnviroAfrica
Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I am alarmed by the project's potential to deplete our only water	Gail Hunter	<p>You have been formally registered as an Interested and Affected Party (I&amp;AP) in the environmental assessment process for the proposed Toeka Dam, pipeline, and associated agricultural development. You will be notified of all public review opportunities, including access to the</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	source, the Riet River, and harm the surrounding ecosystem		Scoping and EIA Reports and specialist studies, and will have the opportunity to submit further comments.	
<b>Water scarcity objection</b>				
Sat 2024/09/07	Our property relies solely on the Riet River as our source of water, which already struggles to flow consistently. I object to the proposed development due to the insufficient water availability in the river and the potential exacerbation of this issue.	Bruce Johnson	<p>The Water Use Licence (WUL No. 01/E21D/AB/9699) issued by the Department of Water and Sanitation for the proposed development has been granted under strict conditions designed specifically to protect downstream water users and ecological integrity, including:</p> <ul style="list-style-type: none"> <li>▪ No abstraction is allowed during low-flow or baseflow periods, which are critical for maintaining downstream supply and environmental flows.</li> <li>▪ Water may only be abstracted during surplus winter flood events, once pre-defined flow thresholds are exceeded, ensuring that your downstream water needs are not compromised.</li> <li>▪ A flow monitoring system must be installed and maintained, and abstraction volumes must be reported to the DWS to ensure compliance.</li> </ul> <p>Your objection, and the fact that your property relies solely on the Riet River for water, has been formally recorded in the public participation process. It will be specifically addressed in the Environmental Impact Report (EIR) and shared with the relevant authorities for their consideration.</p>	EnviroAfrica
Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I object to the project due to the devastating impact it will have on our sole water supply and the environment. The Riet River's fragile ecosystem cannot withstand further strain.	Joesph Rom	<p>You have been formally registered as an Interested and Affected Party (I&amp;AP) in the environmental assessment process for the proposed Toeka Dam, pipeline, and associated agricultural development. Your objection to the project, submitted as a co-owner of the property Zeekoegat and representative of Zeekoegat Farms CC, has been duly noted. In response to these risks, the project is subject to a Water Use Licence (WUL No. 01/E21D/AB/9699), which includes strict conditions to protect both water users and ecological systems:</p> <ul style="list-style-type: none"> <li>▪ No abstraction is allowed during low-flow periods, and flow thresholds must be met before any abstraction is permitted.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>▪ Abstraction is limited to high-flow, surplus winter runoff events, which are monitored in real time.</li> <li>▪ The licence also mandates ongoing compliance reporting, environmental monitoring, and adaptive management in the event of negative impacts on downstream flow.</li> </ul> <p>Your objection and the specific concern for the long-term sustainability of the Riet River's ecosystem and your farm's water security will be addressed in the Environmental Impact Report (EIR) and shared with the relevant authorities during the review and decision-making phases.</p>	
Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I am deeply concerned about the project's threat to our only water source and the long-term damage it will cause to the environment.	Mary Stoby	<p>We recognise that water security for properties like Zeekoegat, which depend solely on the Riet River, is a matter of critical importance. The proposed project has been assessed with this context in mind. The issued Water Use Licence (WUL No. 01/E21D/AB/9699) contains specific conditions to safeguard downstream users:</p> <ul style="list-style-type: none"> <li>▪ Abstraction is prohibited during baseflow or low-flow periods, ensuring that essential flows remain available to sustain both people and ecosystems.</li> <li>▪ Water may only be abstracted during high-flow winter events, and only after minimum flow thresholds—calculated to protect ecological and user needs—have been exceeded.</li> <li>▪ A flow monitoring system and compliance auditing are mandatory to enforce these limits.</li> </ul> <p>Environmental impacts have been assessed through multiple specialist studies, and the project is required to:</p> <ul style="list-style-type: none"> <li>▪ Avoid high-sensitivity habitats.</li> <li>▪ Implement rehabilitation and invasive species control.</li> <li>▪ Monitor downstream ecological health as part of the Environmental Management Programme (EMPr).</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I strongly object to the project, which will not only deplete our sole water supply but also harm the biodiversity and ecological balance of the Riet River.	Michael Hunter	<p>Your property's reliance on the Riet River is fully recognised, and the need to protect downstream users is a central consideration of the project. The Water Use Licence (WUL No. 01/E21D/AB/9699) issued by the Department of Water and Sanitation includes binding conditions to protect both water availability and ecological function:</p> <ul style="list-style-type: none"> <li>▪ Abstraction is limited to verified winter high-flow (flood) events only.</li> <li>▪ No abstraction is permitted during baseflow or dry periods, ensuring that low flows essential for downstream users and ecosystems are maintained.</li> <li>▪ Real-time flow monitoring is required to enforce these thresholds, with regular compliance audits and reporting.</li> </ul> <p>Specialist studies conducted as part of the environmental assessment, including a Freshwater Impact Assessment and a Botanical Study, have informed the development of an Environmental Management Programme (EMPr) that includes:</p> <ul style="list-style-type: none"> <li>▪ Measures to minimise habitat loss and fragmentation.</li> <li>▪ Monitoring of ecological conditions downstream.</li> <li>▪ Rehabilitation of disturbed areas and protection of riparian buffer zones.</li> <li>▪ Ongoing oversight of potential cumulative effects on river health.</li> </ul>	EnviroAfrica
Sat 2024/09/07	I wish to register as an Interested and Affected Party regarding the proposed Toeka dam, pipeline, and agricultural development. As a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, I am opposed to the project due to its potential to exacerbate water scarcity and environmental degradation in an already vulnerable area.	Robert Hunter	<p>Your objection, submitted as a member of Zeekoegat Farms CC and co-owner of the property Zeekoegat, has been duly noted. We recognise the increasing pressure on water resources in the Koue Bokkeveld region, particularly in catchments that feed into the Riet River system. In response to this, the project is governed by a Water Use Licence (WUL No. 01/E21D/AB/9699) that includes:</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>▪ Strict limits on abstraction, which may only occur during high-flow (winter flood) periods.</li> <li>▪ A prohibition on abstraction during baseflow or dry periods, when environmental and user needs are greatest.</li> <li>▪ Real-time flow monitoring and reporting, with enforceable compliance requirements.</li> </ul> <p>These measures are intended to prevent any material impact on downstream water availability and ensure that ecological water requirements are upheld. Specialist assessments—such as the Freshwater Impact Assessment and Botanical Report—have identified environmental sensitivities and informed a range of mitigation measures, including:</p> <ul style="list-style-type: none"> <li>• Protection of riparian zones and remaining indigenous vegetation.</li> <li>• Controlled clearing with search-and-rescue protocols where relevant.</li> <li>• Post-construction rehabilitation and alien invasive species management.</li> <li>• Integration of environmental monitoring into the Environmental Management Programme (EMPr).</li> </ul> <p>Your opposition and concerns will be taken into account during the finalisation of the Environmental Impact Report (EIR) and shared with the relevant authorities as part of their review. You will be notified of all future opportunities to review documents and provide further comment as the EIA process continues.</p>	
Thur 2024/09/05	I wish to object to the construction of the proposed Toeka dam, pipeline and the creation of the associated agricultural area. I am a member of Zeekoegat Farms CC, a co-owner of the property Zeekoegat.	Dr. David A.H. Buckley	<p>Your objection to the proposed Toeka Dam, pipeline, and associated agricultural development has been formally recorded as part of the Public Participation Process for the project.</p> <p>We also acknowledge your status as a member of Zeekoegat Farms CC and co-owner of the property</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p>Zeekoegat, and recognise your direct interest in the potential impacts of this development on the local environment and water resources. Your objection will be:</p> <ul style="list-style-type: none"> <li>• Included in the Comments and Responses Report.</li> <li>• Taken into consideration during the compilation of the Environmental Impact Report (EIR).</li> <li>• Shared with the relevant authorities as part of the decision-making process.</li> </ul> <p>You will be kept informed of the next phases of the environmental assessment, including the availability of reports for public review and further comment.</p>	
Thur 2024/09/12	I am affected by the decisions made by this project due to the conservation of this succulent karoo that needs to be protected overlapped with Kouebokkeveld with its massive diversity and sensitive eco system. I am very concerned about the effect it will have on the biodiversity and natural landscapes.	Juanita Wilmans	<p>You have been registered as an Interested and Affected Party (I&amp;AP) in the Environmental Impact Assessment (EIA) process. We fully recognise that the area forms part of the Succulent Karoo Biome, a globally recognised biodiversity hotspot, and overlaps with the Kouebokkeveld region. To address these concerns, the project is supported by the following:</p> <ul style="list-style-type: none"> <li>• A Botanical Impact Assessment and Freshwater Impact Assessment, which identify sensitive areas and species of conservation concern.</li> <li>• Avoidance of intact and high-sensitivity areas in the development layout.</li> <li>• Implementation of a detailed Environmental Management Programme (EMPr) that includes:</li> <li>• Rehabilitation plans, vegetation clearing protocols, and faunal rescue procedures.</li> <li>• Alien invasive species control to support indigenous species regeneration.</li> <li>• Buffer zones around watercourses and habitat patches.</li> <li>• Biodiversity monitoring and adaptive management measures to respond to unexpected impacts over time.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Thur 2024/09/12	I therefor object to dam building, draining river systems and habitat destruction by ploughing up natural habitat for agriculture and destroying Swart Ruggens Conservancy and ecological water systems.	Juanita Wilmans	<p>Your objection to the proposed Toeka Dam, pipeline, and associated agricultural development has been formally recorded as part of the Environmental Impact Assessment (EIA) process, and you have been registered as an Interested and Affected Party (I&amp;AP). Your concern for the integrity of the Swartruggens Conservancy and broader ecological infrastructure is noted and shared by the project team and regulatory authorities. While the proposed development is not located within the boundaries of the conservancy, we acknowledge that ecological impacts can extend beyond the immediate project footprint, especially when river systems are involved. To address the environmental concerns raised:</p> <p>The project has been issued a Water Use Licence (WUL No. 01/E21D/AB/9699) with strict conditions to limit abstraction to winter flood flows only, thereby avoiding any reduction in baseflow or dry-season flow needed to sustain downstream ecosystems.</p> <p>The project is subject to an Environmental Management Programme (EMPr) that includes:</p> <ul style="list-style-type: none"> <li>• Limits on vegetation clearance.</li> <li>• Habitat sensitivity mapping to avoid intact natural areas.</li> <li>• Rehabilitation and alien species control measures.</li> <li>• Compliance monitoring and oversight by the relevant authorities.</li> </ul> <p>Your objection will be included in the Comments and Responses Report and will directly inform:</p> <ul style="list-style-type: none"> <li>• The assessment of cumulative ecological impact.</li> <li>• The final recommendations in the Environmental Impact Report (EIR).</li> <li>• Regulatory review by the competent authority, including CapeNature and the Department of Water and Sanitation.</li> </ul>	EnviroAfrica
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## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Wed 2024/09/18	I have recently learned that the unique private nature reserve of South Africa Kleine Cederberg, which is part of the Swartuggens Nature Reserve, is in great danger due to the possible construction of dams, which could lead to a change in the water regime of the territory and the loss of unique natural communities.	Vladimir Lantsov	<p>It is important to clarify that the proposed development is not located within the boundaries of the Kleine Cederberg or Swartuggens reserves, but rather within the Houdenberg catchment, which ultimately contributes to the Riet River system. While there is no direct infrastructure proposed within the reserves, we fully acknowledge that indirect impacts on hydrology and downstream ecological processes must be assessed with care. As part of the environmental assessment process:</p> <ul style="list-style-type: none"> <li>• A Freshwater Impact Assessment has been conducted to evaluate the potential alteration of flow regimes and their ecological implications.</li> <li>• A Water Use Licence (WUL No. 01/E21D/AB/9699) has been issued under the condition that abstraction may occur only during surplus winter flood events, ensuring that natural baseflow and low-flow regimes, which support downstream ecosystems, are not compromised.</li> <li>• No abstraction is permitted during summer or dry periods, and real-time flow monitoring is required to ensure compliance.</li> <li>• The project's cumulative ecological risk, including to sensitive downstream areas, is under review and will inform the final decision-making process.</li> </ul> <p>Your concern regarding the possible disruption of ecological balance in the Kleine Cederberg and surrounding conservation areas has been formally recorded in the Comments and Responses Report and will be reviewed by both the environmental assessment team and the relevant regulatory authorities.</p>	EnviroAfrica
Sat 2024/09/07	I can report that there are a large number of near-water insects from various orders and families. There are many species of dragonflies of the families: Sylestidae, Coenagrionidae (Masai Sprite, Hagen's Sprite), Anisoptera (Common Thorntail), Aeshnidae (Blue Emperor and Friendly Hawker), Libellulidae (about 10 species). Of	Valentin Tikhonov	<p>Your contribution will be:</p> <ul style="list-style-type: none"> <li>• Shared with the faunal and freshwater specialists for potential field verification.</li> <li>• Included in the Comments and Responses Report.</li> <li>• Used to inform biodiversity sensitivity mapping and appropriate mitigation or conservation measures in</li> </ul>	EnviroAfrica



## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	the praying mantises found here are: Flower Mantid, Boxer Mantid, Common Green Mantid, Delicate Mantid, Marbled Mantid, Ground Mantid, Stick Mantid and Coneheaded Mantid. There are a large number of species of Grasshoppers and Locuts (Orthoptera), such as Foam Grasshopper, Elegant Grasshopper, Common Stick Grasshopper, Green Tree Locust, Brown Locust, Garden Locust and Blue-wing. Quite numerous Water Bugs: Pygmy water boatmen, Common Beckswimmer, Stout Beckswimmer, Flat Saucer Bugs, Water Stick Insects and Common Water Scorpion.		the Environmental Management Programme (EMPr).	
Sat 2024/09/07	This area is home to unique Karoo endemics from the order Mantophasmatodea: Jade Heel-walker ( <i>Viridiphasma clanwilliamense</i> ), Namaqualand Heel-walker ( <i>Karooophasma biedouwense</i> ) and Fynbos Heel-walker ( <i>Lobatophasma redelinghuysense</i> ).	Valentin Tikhonov	<p>This information has been:</p> <ul style="list-style-type: none"> <li>Formally recorded in the Comments and Responses Report.</li> <li>Shared with the faunal specialist team to evaluate the likelihood of suitable habitat within or adjacent to the development footprint.</li> <li>Flagged for inclusion in the biodiversity sensitivity analysis and mitigation planning within the Environmental Impact Report (EIR) and Environmental Management Programme (EMPr).</li> </ul>	EnviroAfrica
Lacking community benefit				
Thur 2024/09/05	There is no quantitative information on exactly what, if any, benefit there will be to the local community in terms of the numbers of seasonal or permanent jobs resulting from this enterprise, it appears to be purely a profit-making exercise.	Dr. David A.H. Buckley	<p>Preliminary planning estimates indicate the following:</p> <p><b>Construction Phase (temporary jobs):</b></p> <p>Short-term employment opportunities are expected to be created during the dam and infrastructure construction phase. These will include general labour, security, machine operation, and site support roles.</p> <p><u>Operational Phase (long-term jobs):</u></p> <p>The proposed agricultural expansion will generate permanent jobs, with additional seasonal jobs during peak planting and harvesting periods. These roles will include farm workers, irrigation managers, maintenance personnel, and support services.</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p><u>Skills development:</u> The project will incorporate on-site training for irrigation and land preparation to promote upskilling of local workers, with a view to long-term employment sustainability.</p> <p>Your concern about the potential for downstream job losses due to reduced water availability is also recognised. The Freshwater Impact Assessment and the terms of the Water Use Licence (WUL No. 01/E21D/AB/9699) address this by:</p> <ul style="list-style-type: none"> <li>• Strictly limiting water abstraction to surplus winter flows and prohibiting abstraction during baseflow periods to protect downstream users.</li> <li>• Requiring flow monitoring and compliance auditing to ensure that no interruption occurs to water availability beyond the licensed thresholds.</li> <li>• Mandating that abstraction cease when minimum environmental flows are not met, thereby preserving ecological and agricultural sustainability downstream.</li> </ul> <p>These conditions will be put in place to prevent adverse downstream economic impacts, including on jobs dependent on a stable irrigation supply.</p>	
<b>Reiterating Previous Opposition</b>				
Thur 2024/09/05	This development was proposed in 2019 and vigorously opposed. It is disappointing that we are seeing another attempt to get it passed.	Dr. David A.H. Buckley	<p>The present Environmental Impact Assessment (EIA) process is being undertaken as a new and independent application, with updated specialist studies, public participation, and regulatory review, in line with the National Environmental Management Act (NEMA) and its regulations.</p> <p>- While the core concept of the development remains similar, the project is now subject to:</p> <ul style="list-style-type: none"> <li>• A revised layout and scope.</li> <li>• New or updated botanical, freshwater, and socio-economic impact assessments.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>Public participation opportunities for all previously registered and newly interested parties.</li> </ul>	
<b>Request for Botanical Assessment</b>				
Wed 2024/09/18	<p>I hereby formally request to be registered as an I&amp;AP regarding the proposals to construct the Toeka and Harmony dams on Farm Houdenberg no. 415 (Ceres). As a systematic botanist, conservationist, and consultant, I am concerned of the potential ecological impact that the construction of these two dams would have, particularly on the indigenous flora of the region. I trust that you have appointed a suitably competent botanist to assess the botanical diversity of the proposed development footprints. Of particular interest within that region, is a newly described, highly localized <i>Aspalathus</i> species, <i>Aspalathus jardinii</i> Du Preez &amp; C.H. Stirt., which I described earlier this year. It is endemic to deep sand dunes of the Riet Rivier and potentially surrounding areas and may thus occur within the proposed development footprint. It is provisionally listed as being Endangered but has yet to be formally assessed and thus is not included among the sensitive plant species in the online screening tool report. I include the relevant literature for you and your appointed botanical specialist.</p>	Dr Brian du Preez	<p>We acknowledge your submission of literature concerning <i>Aspalathus jardinii</i>, a highly localised species endemic to deep sand dunes of the Riet Rivier and provisionally assessed as Endangered. While the species may not currently appear on the National Screening Tool due to its recent description, your input is essential in ensuring that it is considered in the project's site-specific biodiversity assessment. We confirm that a qualified botanical specialist has been appointed to assess the development footprint and that the current assessment is being conducted in line with DEA&amp;DP protocols and SANBI guidelines. Should the species or suitable habitat be confirmed on or near the site:</p> <ul style="list-style-type: none"> <li>Avoidance measures will be prioritised.</li> <li>A species-specific management and mitigation plan will be required.</li> <li>Consultation with relevant conservation authorities (e.g., CapeNature and SANBI) will be initiated.</li> </ul>	EnviroAfrica
<b>Concern for Biodiversity Impact</b>				
Wed 2024/09/18	<p>As is known, the disappearance of species is often associated with the loss of their habitats, given that a significant part of the entomofauna and, in particular, tipuloid dipterans, are topically confined to aquatic and near-water communities, their loss in the Kleine Cederberg nature reserve will inevitably lead to the disappearance of unique biota.</p>	Vladimir Lantsov	<p>We fully acknowledge your concern that any hydrological disruption or habitat alteration, including that potentially caused by dam construction, may contribute to the local extinction of specialised and endemic species within the Kleine Cederberg Nature Reserve and its surrounding ecological corridors. Your opinion and ecological warning have been formally recorded as part of the public participation process and will be:</p> <ul style="list-style-type: none"> <li>Considered in the evaluation of biodiversity and ecosystem-level impacts in the Environmental Impact Report (EIR).</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>Shared with specialist ecologists and conservation authorities involved in the review of the proposed development.</li> <li>Reflected in any mitigation or offset recommendations that may arise during the EIA process.</li> </ul>	
Sat 2024/09/07	I have received information that this area is threatened with major anthropogenic interference, namely the creation of dams on a small river flowing here, the floodplain of which, together with small lakes, makes up a significant part of the territory with the existing original water and near-water biocomplexes. Any change by a person of natural conditions leads to a violation of the ecology of plant and animal species living here, and to a deterioration in the state of biodiversity. The creation of dams on the river upstream will lead to the disappearance of the aquatic habitat in the Kleine Cederberg nature reserve, which is part of the Swartruggens Conservancy, the death of representatives of the aquatic flora and fauna, which will affect the entire ecosystem of the region, will have a negative impact on the river system, ecological environment habitats of fish, amphibians, birds and plants not only in the designated region, but also in the surrounding areas hundreds of kilometers downstream.	Valentin Tikhonov	<p>The proposed development has undergone Freshwater and Botanical Impact Assessments, which have identified:</p> <ul style="list-style-type: none"> <li>Areas of high ecological sensitivity; <ul style="list-style-type: none"> <li>- The need to limit abstraction strictly to winter high-flow events, in line with Water Use Licence (WUL) No. 01/E21D/AB/9699.</li> </ul> </li> <li>The requirement for real-time flow monitoring and no water uses during low-flow or baseflow periods.</li> </ul> <p><u>Mitigation measures include:</u></p> <ul style="list-style-type: none"> <li>Defined setbacks from watercourses and wetland areas.</li> <li>Development of a rehabilitation and monitoring programme.</li> <li>Avoidance of intact habitats where feasible.</li> <li>Compliance with the National Environmental Management Act (NEMA) and related biodiversity legislation.</li> </ul>	EnviroAfrica
Thur 2024/09/12	I am affected by the decisions made by this project due to the conservation of this succulent karoo that needs to be protected overlapped with Kouebokkeveld with its massive diversity and sensitive eco system. I am very concerned about the effect it will have on the biodiversity and natural landscapes.	Juanita Wilmans	We are committed to ensuring that this newly described and potentially endangered species is afforded the necessary attention and protection throughout the environmental assessment and development process.	EnviroAfrica
Wed 2018/10/31	CapeNature would like to thank you for the opportunity to comment on the above application and wish to make the following comments. Please note that our comments pertain only to the biodiversity related impacts and not to the overall desirability of the application.	CapeNature	Noted.	EnviroAfrica
Wed 2018/10/31	1. It is confirmed that our comments of 27 July 2017 based on the Background Information Document sent out at the	CapeNature	Noted.	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	time have been included in this, the Pre- Application Scoping Report for the construction of a new dam (Toeka dam) on the remainder of Farm Houdenberg 415 Ceres.			
Wed 2018/10/31	2. As noted in our comments of 27 July 2017, CapeNature does not support new instream dams or enlargement of existing instream dams unless it can be shown that the ecological condition of the river/stream in which the dam is located can be improved and no significant terrestrial or aquatic habitat will be lost. It is noted that a Freshwater Specialist and a Botanical Specialist have been appointed to conduct assessments and that the results of these studies will be used to determine the impact on terrestrial and aquatic habitat and on overall ecological condition.	CapeNature	<p>We acknowledge that CapeNature does not support the construction of new instream dams or the enlargement of existing ones unless it can be clearly demonstrated that:</p> <ul style="list-style-type: none"> <li>- The ecological condition of the affected river or stream can be improved, and;</li> <li>- No significant terrestrial or aquatic habitat will be lost as a result of the development.</li> </ul> <p><u>The Freshwater Specialist Report (2023) concluded that:</u></p> <ul style="list-style-type: none"> <li>• The aquatic habitat at the proposed dam site is already substantially disturbed due to historical agricultural use.</li> <li>• The drainage lines in the area are non-perennial and only contain surface water following significant rainfall events, with no permanently flowing water or fully developed wetland ecosystems present.</li> <li>• The direct freshwater impact from the dam is considered limited in scope, though cumulative impacts on the Riet and Doring River systems remain a concern.</li> <li>• Abstraction is limited to surplus winter flows, regulated by the conditions of Water Use Licence No. 01/E21D/AB/9699, which includes mandatory flow monitoring and compliance safeguards to protect downstream ecological systems.</li> </ul> <p>A River Maintenance Management Plan has been recommended, and further hydrological analysis is proposed during the EIA phase to assess sustainability and reserve compliance. According to the Botanical Assessment (2019):</p> <ul style="list-style-type: none"> <li>• The proposed dam site historically supported Western Kouebokkeveld Shale Fynbos, classified as Least Threatened under the National Biodiversity Assessment.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>• However, the site has been completely transformed by prior cultivation and now supports secondary vegetation.</li> <li>• No plant species of conservation concern were recorded within the direct footprint.</li> <li>• The site is mapped within an Ecological Support Area (ESA2) but not a Critical Biodiversity Area (CBA), and its conservation value is considered moderate to low.</li> <li>• The impact significance from a botanical perspective is rated as Low Negative.</li> </ul> <p>Based on the current evidence:</p> <ul style="list-style-type: none"> <li>▪ There is no significant loss of intact aquatic or terrestrial habitat.</li> <li>▪ The ecological functioning of the system will not be further degraded, and abstraction is limited to conditions that aim to preserve baseflow and reserve requirements.</li> <li>▪ Where remnant habitat patches exist, the development layout has been adjusted to minimise disturbance, and mitigation measures such as faunal rescue, vegetation clearing protocols, rehabilitation, and ongoing monitoring will be implemented through the EMPr.</li> </ul>	
Wed 2018/10/31	3. The proposed site of the Toeka dam falls within an Ecological Support Area (ESA2). The desired management objectives for ESA2 areas is that they are restored and or managed to minimise impact on ecological infrastructure functioning, especially soil and water related services, which will be particularly relevant in this case. The findings of the Freshwater and the Botanical assessments currently underway will assist with a better understanding of the potential impacts on the ESA.	CapeNature	<p>We acknowledge that the desired management objective for ESA2 areas is to ensure they are managed and/or restored in a way that minimises impacts on ecological infrastructure, particularly in relation to soil and water-related ecosystem services.</p> <p>This objective is highly relevant to the proposed development, and your concern about the site's ecological role in supporting broader landscape function is both valid and central to the environmental assessment process. The findings from the Botanical and Freshwater specialist assessments provide the following insights:</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p><u>Botanical Assessment (2019):</u></p> <ul style="list-style-type: none"> <li>• The site has been completely transformed by historical cultivation and now supports mostly secondary vegetation with low ecological integrity.</li> <li>• No Critical Biodiversity Areas (CBAs) or plant species of conservation concern were recorded within the dam footprint.</li> <li>• From a botanical perspective, the impact significance of the dam was rated as <u>Low Negative</u>.</li> </ul> <p><u>Freshwater Impact Assessment (2023):</u></p> <ul style="list-style-type: none"> <li>▪ The site includes non-perennial drainage lines with no permanently aquatic habitat.</li> <li>▪ Aquatic features present are already degraded, and no functional wetland system will be lost as a result of the development.</li> <li>▪ The project includes conditions to abstract only surplus winter water under a Water Use Licence, and a River Maintenance Management Plan is recommended to support ecosystem functioning.</li> </ul> <p>Together, these studies conclude that while the site lies within an ESA2, the remaining ecological infrastructure value is limited due to previous land transformation, and further degradation is unlikely if mitigation measures are implemented.</p> <p><u>To align with the ESA2 management objectives, the following steps will be implemented:</u></p> <ul style="list-style-type: none"> <li>▪ Avoidance of remaining intact habitat and minimisation of further soil or hydrological disturbance.</li> <li>▪ Rehabilitation of disturbed areas, including dam embankments and construction zones.</li> <li>▪ Erosion control, invasive species management, and compliance with environmental authorisation conditions.</li> </ul>	
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## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>▪ Ongoing ecological monitoring to detect and respond to potential negative trends.</li> </ul>	
Wed 2018/10/31	4. The vegetation type mapped for the site of the proposed Toeka Dam is Kouebokkeveld Shale Fynbos which is categorised as Vulnerable according to criterion A1: Irreversible loss of natural habitat. It is important that further loss of loss of this vegetation type is avoided however if avoidance is not possible then there should be reasonable mitigation for any impacts caused by the proposed development. Please note the possible incorrect reference to Kouebokkeveld Alluvium Fynbos on page 15 of the PreApplication Scoping Report for the proposed Toeka dam.	CapeNature	<p>We confirm that the vegetation type mapped for the site of the proposed Toeka Dam is indeed Kouebokkeveld Shale Fynbos, which is classified as Vulnerable under criterion A1 of the National Biodiversity Assessment. This classification is based on the irreversible loss of natural habitat, and we acknowledge the critical importance of avoiding further transformation of this vegetation type wherever possible.</p> <p>Thank you for noting the incorrect reference to Kouebokkeveld Alluvium Fynbos on page 15 of the Pre-Application Scoping Report. We confirm this was a typographical error. The correct vegetation type, as verified in both the National Vegetation Map and the botanical specialist report, is Kouebokkeveld Shale Fynbos.</p>	EnviroAfrica
Wed 2018/10/31	5. It is noted that a concurrent process is being followed for the Harmony Dam application on the same property and a separate but similar comment is submitted for that however the DEA&DP communication of 10th November 2017 recommended that one process be followed for both applications. Please confirm the reasoning behind the two separate processes.	CapeNature	<p>We acknowledge the communication dated 10 November 2017 from the Department of Environmental Affairs and Development Planning (DEA&amp;DP), which recommended that the Toeka and Harmony Dam applications be processed under a single, consolidated EIA process. This recommendation aimed to ensure integrated assessment of potential cumulative impacts, given the proximity and shared catchment context of the two proposed developments.</p> <p><b>Reason for Separate EIA Processes</b> While the intention to consolidate was recognised, the decision to proceed with separate EIA applications was made based on the following considerations:</p> <p><b>Project Readiness and Technical Separation:</b> The Toeka Dam progressed to a more advanced stage of planning and water use authorisation ahead of the Harmony Dam. Each dam has distinct technical designs, construction timelines, and infrastructure components, making parallel but separate assessments more feasible from a project management and licensing perspective.</p>	EnviroAfrica



## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p><u>Site-Specific Impacts:</u> Although both projects are located on the same property, the footprints, habitats, and environmental sensitivities differ substantially. The Toeka Dam is situated in a historically transformed area with lower ecological sensitivity, while the Harmony Dam interacts with more sensitive biodiversity features, including areas adjacent to a declared protected area. As such, distinct specialist inputs and mitigation frameworks are required.</p> <p><u>Administrative Practicality:</u> Proceeding with separate EIAs allows for independent evaluation of each project's viability, impact, and authorisation conditions, rather than delaying both due to the complexity of integration.</p>	
Thu 2019/08/22	CapeNature would like to thank you for the opportunity to comment on the above application and wish to make the following comments. Please note that our comments pertain only to the biodiversity related impacts and not to the overall desirability of the application.	CapeNature	Noted.	EnviroAfrica
Thu 2019/08/22	1. It is confirmed that our comments of 31 October 2018 and 21 July 2017 have been included in this, the Revised Pre- Application Scoping Report for the construction of a new dam (Toeka dam) on the Remainder of Farm Houdenberg 415, Ceres. As the proposed Toeka and Harmony Dams are both on the same property within relatively close proximity to each other and as both applications are running concurrently there will be an overlap in comments and issues raised.	CapeNature	Noted.	EnviroAfrica
Thu 2019/08/22	2. As noted previously, the WCBSP 2017 indicates that the site of the proposed Toeka dam (with a capacity of 2 million m3 covering an area of 35 hectares) is within an Ecological Support Area (ESA2). The reasons for the ESA status at this site is for groundwater recharge, watercourse protection and due to the presence of a channelled valley	CapeNature	<p>The Freshwater Impact Assessment (2023) and Botanical Assessment (2019) provide the following insights for this site:</p> <p>The wetland area mapped as a channelled valley bottom is heavily degraded, primarily due to historical cultivation and</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	<p>bottom wetland. As such this area should be rehabilitated to allow for improved water flow and ecological functioning.</p>		<p>infrastructure. It no longer exhibits full wetland functionality or typical vegetation indicators.</p> <p>The terrestrial vegetation is classified as Western Kouebokkeveld Shale Fynbos (Vulnerable), but within the development footprint, the natural habitat has been irreversibly transformed, and no plant species of conservation concern were recorded.</p> <p>The aquatic ecosystem condition is considered moderately to heavily modified, with only temporary surface saturation observed after significant rainfall.</p> <p>Despite the ESA2 designation, both specialists concluded that the site no longer fulfils its intended ecological support function at a meaningful level due to prior disturbance. Although full rehabilitation of the area would be ideal under the WCBSP framework, the existing degraded state, combined with the agricultural transformation already present, limits the practical opportunity for full restoration.</p> <p><u>Nonetheless, the project includes measures to align with ecological support objectives, including:</u></p> <ul style="list-style-type: none"> <li>• Avoidance of any remaining intact habitat within the broader ESA2 zone.</li> <li>• Erosion control, runoff management, and buffer zones to protect adjacent features.</li> <li>• Rehabilitation of construction zones to promote natural vegetation recovery and water flow regulation.</li> <li>• Implementation of a River Maintenance Management Plan (MMP) to support ecological infrastructure functioning in the long term.</li> <li>• These mitigation strategies will be formalised in the Environmental Management Programme (EMPr) and monitored for compliance.</li> </ul>	
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## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Thu 2019/08/22	<p>3. Consistent with our previous comments, freshwater impacts and downstream cumulative impacts on water quality and quantity remain a concern. These concerns are corroborated by the findings of the WATSAN Freshwater Technical Report of May 2018. The WATSAN report addresses the potential impacts of both the proposed Harmony and Toeka Dams and stresses that the main impact receptor would be downstream in the Doring River, which is already a water stressed system. The WATSAN report states that "The combined storage capacity of farm dams in the upper Doring River catchment is probably more than the Mean Annual Runoff (MAR). This has dire consequences for river health, especially further down the river system, particularly the Doring River, as its hydroperiod is already impaired. Yet another dam such as the envisaged Harmony and Toeka Dams would serve to worsen the situation". Also noted is the current expansion of the Clanwilliam dam. The report also indicates that the potential for dam failure, due to not filling up, is high. The regional context of the quaternary catchment is significant. The Harmony and Toeka Catchments flow into the Houdenberg River, which, along with the Winkelhaak River, flows into the Riet River. The Riet River flows into the Groot River not far its confluence with the Doring River. The Doring River is the main tributary of the Olifants River. The Olifants River is of considerable socio-economic and environmental value to the Western Cape Province and as such its optimal functioning should not be further compromised. A recent study by the Freshwater Research Centre demonstrates that the Ecological Reserve targets for the Riet River are not being met (Paxton et al 2016). The research is ongoing and more recent data from 2018 further substantiate the findings. Attached as Annexure 1 to this submission is a document from the Fresh Water Research Centre which summarises the most recent data from 2018. The relevant figures can be found in Table 1 which shows that there is</p>	CapeNature	<p>We note that the Water Use Licence (WUL No. 01/E21D/AB/9699) does include several safeguards intended to mitigate downstream risks:</p> <ul style="list-style-type: none"> <li>• Abstraction is permitted only when a 25% instream flow threshold is exceeded, with real-time monitoring required both upstream and downstream.</li> <li>• Daily abstraction volumes must be measured, recorded, and submitted biannually.</li> <li>• A catchment-wide management plan and flushing flow protocols are required.</li> <li>• Water availability is not guaranteed, and the licence may be amended if sustainability becomes compromised.</li> </ul> <p>However, we emphasise that these conditions, while proactive, are only as effective as their implementation and enforcement. Catchment-Level Assessment: The hydrological analysis will be updated to include cumulative abstraction volumes from existing dams and confirmed Water Use Licences within the broader E21D and Riet catchments.</p> <p>Realistic Yield Modelling: Updated modelling will reflect the revised nMAR figures and projected return intervals for surplus flows, aligned with the Freshwater Research Centre's findings. The EIR will incorporate hydrological and ecological impact analysis.</p>	EnviroAfrica
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## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	<p>'surplus' water only in very wet years however only 1.6 Mm3/a (2013) which is less than what is being requested by the applicant. Figure 2 represents monthly deficits and Figure 3 (R43 Riet) shows that the river in question hasn't flowed downstream of the subject property since the winter of 2014. The WATSAN report references the findings of the Freshwater Research Centre and acknowledges Dr Paxton is a leading authority in this field. CapeNature ecologists support these findings, and report that the Houdenberg is a highly stressed catchment, citing the combined effect of the large number of existing dams as negatively impacting flow. This aligns with the evidence presented in the WATSAN freshwater report which indicates that the proposed development would severely compromise the functioning of the already stressed downstream river system. Based on the evidence presented, particularly that of the Ecological Reserve targets not being met, CapeNature is not able to support the proposed development of Toeka dam.</p>			
Thu 2019/08/22	<p>4. With reference to potential botanical impacts, the botanical specialist report concludes that the impact of a dam at the Toeka site would be Low Negative from a terrestrial botanical perspective however does also note that the area is an ESA2 and has ecological value particularly in relation to being a seasonal riparian corridor.</p>	CapeNature	<p>We confirm that the Botanical Assessment concluded that, from a terrestrial botanical perspective, the impact of the proposed dam at the Toeka site would be of Low Negative significance, based on the following:</p> <ul style="list-style-type: none"> <li>• The area has been historically cultivated and is now entirely transformed, with no remaining intact Western Kouebokkeveld Shale Fynbos within the dam footprint.</li> <li>• No plant species of conservation concern were recorded during the field survey.</li> <li>• The current vegetation is dominated by secondary growth and invasive species, reflecting limited residual botanical value within the immediate footprint.</li> </ul> <p>The report also acknowledges that the site is mapped as an ESA2 in the Western Cape Biodiversity Spatial Plan, due to</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p>its position along a seasonal riparian corridor and its potential contribution to:</p> <ul style="list-style-type: none"> <li>• Watercourse protection.</li> <li>• Hydrological connectivity, and</li> <li>• Ecosystem services such as sediment transport and groundwater recharge.</li> </ul> <p>While the immediate site is degraded, the broader ecological role of the corridor is recognised, and the report stresses the importance of limiting further fragmentation and ensuring that any impacts do not disrupt the functioning of the surrounding landscape.</p> <p>In response to these sensitivities, the project will:</p> <ul style="list-style-type: none"> <li>• Avoid intact habitat patches where possible within the broader ESA2 context.</li> <li>• Implement vegetation clearing protocols, faunal rescue procedures, and rehabilitation plans through the Environmental Management Programme (EMPr);</li> <li>• Include buffer zones along the riparian margins and monitor for erosion and invasive species.</li> <li>• Ensure ongoing compliance with the National Environmental Management Act (NEMA) and the Water Use Licence, which requires appropriate setbacks from watercourses.</li> </ul>	
Thu 2019/08/22	5. In conclusion, based on the evidence presented, particularly that of the Ecological Reserve targets not being met, Cape Nature is not able to support the proposed development of Toeka Dam.	CapeNature	Noted.	EnviroAfrica
Tue 2024/09/10	CapeNature would like to thank you for the opportunity to comment on the Initial Notification Letter for this application and wish to make the following comments:	CapeNature	Noted.	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Tue 2024/09/10	1. There was a previous application for the construction of the Harmony and Toeka Dams on the Remainder of Farm Houdenbek No 415, Ceres, (DEA&DP reference number: 16/3/3/6/7/1/B5/2/1367/17), which CapeNature commented on 21 July 2017, 31 October 2018 and 22 August 2019, respectively. These comments still have reference.	CapeNature	Noted.	EnviroAfrica
Tue 2024/09/10	2. There are two vegetation types mapped for the proposed agricultural area: Kouebokkeveld Shale Fynbos, which is listed as a Vulnerable ecosystem, and Kouebokkeveld Alluvium Fynbos, listed as a Critically Endangered ecosystem. The proposed dam area borders Ecological Support Areas (ESA) – an area that plays an important role in supporting the functioning of Protected Areas or Critical Biodiversity Areas, and are often vital for delivering ecosystem services. In this case the ESA is important as a water source and for water recharge. Therefore, an updated botanical assessment conducted by an appropriately qualified and experienced specialist is recommended to determine the potential impact of the proposed dam and agricultural development on the vegetation. Alternatively, please provide us with the Botanical Specialist Report of the previous Harmony and Toeka Dams applications to see whether an updated Botanical assessment is necessary.	CapeNature	<p>We confirm that the proposed development area intersects with two mapped vegetation types, according to the National Vegetation Map (2018):</p> <ul style="list-style-type: none"> <li>Kouebokkeveld Shale Fynbos – listed as a Vulnerable ecosystem under the National Biodiversity Assessment (NBA), primarily due to habitat transformation and ongoing development pressure.</li> <li>Kouebokkeveld Alluvium Fynbos – listed as Critically Endangered, with limited remaining extent and high conservation priority.</li> </ul> <p>It is important to note that the Toeka Dam footprint itself, as per the botanical field assessment, is located in an area that has been entirely transformed by historic cultivation and currently supports only secondary vegetation with no remnant natural habitat from either mapped vegetation types. A site-specific botanical assessment was conducted in March 2019, covering both the Toeka Dam footprint. The assessment:</p> <ul style="list-style-type: none"> <li>Verified the complete transformation of vegetation at the Toeka site.</li> <li>Found no plant species of conservation concern.</li> <li>Determined the botanical sensitivity of the Toeka site to be low, with an overall impact rating of <u>Low Negative</u> from a terrestrial perspective.</li> <li>Acknowledged the site's ESA2 status but concluded that the functional ecological value was already substantially diminished due to prior land use.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Tue 2024/09/10	3. The area also borders the Kouebokkeveld Mountain Catchment Area (MCA) to the south and is considered an important area for runoff and acts as a Primary catchment area and Strategic Water Source Area for ground and surface water.	CapeNature	<p>We confirm that the proposed Toeka Dam site lies immediately north of the Kouebokkeveld MCA, a formally designated water catchment area that contributes significantly to:</p> <ul style="list-style-type: none"> <li>• Regional water supply stability.</li> <li>• Groundwater recharge through infiltration along geological interfaces.</li> <li>• Surface water yield into the Houdenberg, Winkelhaak, and Riet River systems.</li> </ul> <p>As part of the Strategic Water Source Areas (SWSAs) recognised in national water policy, the broader Kouebokkeveld region plays a critical role in water security for downstream ecosystems and agricultural users within the Olifants-Doring catchment. Given the site's hydrological setting and its location adjacent to these sensitive catchment areas, the following have been incorporated into the environmental assessment process:</p> <p>The Freshwater Impact Assessment evaluates runoff dynamics, water abstraction limits, and the risks of altered flow regimes, particularly under reduced rainfall and drought scenarios.</p> <ul style="list-style-type: none"> <li>• The project is constrained by a Water Use Licence that limits abstraction to verified winter surplus flows only, with real-time monitoring of upstream and downstream conditions.</li> <li>• The Environmental Management Programme (EMPr) includes erosion control, stormwater management, and buffer zone requirements to protect infiltration zones and flow corridors.</li> <li>• Cumulative water resource stress, including impacts on surface-groundwater interactions, is being considered in the EIA and will inform the final decision-making process.</li> </ul>	EnviroAfrica
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## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<p>We recognise the need for precautionary planning when proposing developments near critical catchment zones. The final Environmental Impact Report (EIR) will present:</p> <ul style="list-style-type: none"> <li>• A more detailed hydrological context.</li> <li>• Evaluation of abstraction sustainability.</li> <li>• Potential consequences for long-term groundwater availability and downstream river functioning, particularly in the face of climate variability.</li> </ul>	
Tue 2024/09/10	<p>4. In general, CapeNature does not support new instream dams or enlargement of existing instream dams unless it can be shown that the condition of the catchment, particularly downstream of the dam, will not worsen and that other compensation measures are put in place.</p>	CapeNature	<p>With respect to the proposed Toeka Dam, the project team has committed to the following to align with this principle:</p> <ul style="list-style-type: none"> <li>• Abstraction is restricted to verified surplus winter flows only, as stipulated in the approved Water Use Licence (WUL No. 01/E21D/AB/9699).</li> <li>• A system of flow monitoring upstream and downstream of the dam will be implemented to ensure compliance with ecological reserve flow requirements.</li> <li>• The Freshwater Impact Assessment acknowledges the cumulative impact risks in the broader Doring and Olifants River systems and calls for further hydrological evaluation to confirm the sustainability of abstraction volumes.</li> <li>• The Environmental Management Programme (EMPr) will include measures to manage erosion, sedimentation, alien invasive species, and post-construction rehabilitation.</li> <li>• While the site-level impact is considered low due to prior transformation, the EIA process recognises that the downstream implications, particularly cumulative hydrological stress, must be evaluated with appropriate mitigation or offset strategies, if found necessary.</li> </ul> <p><u>The Environmental Impact Report (EIR) will:</u></p> <ul style="list-style-type: none"> <li>• Present an updated cumulative impact assessment incorporating revised flow data.</li> </ul>	EnviroAfrica



## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>Assess whether the catchment condition can be maintained or improved.</li> <li>Consider offset or compensation measures should residual ecological impacts be identified.</li> </ul>	
Tue 2024/09/10	5. We recommend that an updated Freshwater specialist assessment should be conducted to determine ecological flow release and the impact that the proposed development of the dam will have downstream on freshwater ecology and water users.	CapeNature	<p>A Freshwater Impact Assessment was conducted in 2023, which:</p> <ul style="list-style-type: none"> <li>Identified the non-perennial nature of the drainage line at the dam site.</li> <li>Acknowledged the importance of protecting downstream ecological functioning.</li> <li>Highlighted the risk of cumulative impacts on the Doring River system.</li> <li>Recommended that abstraction be limited strictly to high-flow winter periods under monitored conditions.</li> </ul> <p>However, the assessment did not yet incorporate revised hydrological data from the Freshwater Research Centre's 2019 update, nor did it provide detailed modelling of ecological flow releases or long-term hydrological sustainability under climate variability.</p> <p>The project team confirms that:</p> <ul style="list-style-type: none"> <li>The final Environmental Impact Report (EIR) will incorporate an updated freshwater review that takes into account:</li> <li>Revised ecological reserve flow data.</li> <li>Recent rainfall and runoff trends.</li> <li>The findings of the Freshwater Research Centre (Paxton et al., 2019).</li> </ul> <p>If deemed necessary, a supplementary specialist review will be commissioned to strengthen the assessment of downstream risks and flow compliance. We also confirm that:</p>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			The development remains subject to the conditions of the Water Use Licence (WUL), which requires flow monitoring, compliance auditing, and no abstraction during low-flow periods;	
Tue 2024/09/10	6. Please confirm whether the proposed 1200 m pipeline will be above ground or below ground to determine the footprint.	CapeNature	<p>The final footprint of the pipeline corridor will be determined during detailed design and will be included in the Environmental Impact Report (EIR).</p> <p>The Environmental Management Programme (EMPr) will include specific conditions for construction method, access control, rehabilitation, and erosion management along the pipeline route.</p>	EnviroAfrica
<b>Objecting to habitat destruction.</b>				
Thur 2024/09/12	I have a Diploma in Horticulture and have been a Landscaper since 1987 and a participant in conservation in the Touw River conservancy since 2009 in Wilderness. I am linked to Forestry through being an LUSM in 2002 and I was also the chair of SALI in 2002 and 2003. Furthermore, I am a consistently active conservationist who works towards conserving our natural resources and biodiversity for generations to come.	Juanita Wilmans	Noted.	EnviroAfrica
Wed 2024/09/18	As is known, the disappearance of species is often associated with the loss of their habitats, given that a significant part of the entomofauna and, in particular, tipuloid dipterans, are topically confined to aquatic and near-water communities, their loss in the Kleine Cederberg nature reserve will inevitably lead to the disappearance of unique biota.	Vladimir Lantsov	<p>We fully acknowledge your concern that any hydrological disruption or habitat alteration, including that potentially caused by dam construction, may contribute to the local extinction of specialised and endemic species within the Kleine Cederberg Nature Reserve and its surrounding ecological corridors. Your opinion and ecological warning have been formally recorded as part of the public participation process and will be:</p> <ul style="list-style-type: none"> <li>▪ Considered in the evaluation of biodiversity and ecosystem-level impacts in the Environmental Impact Report (EIR).</li> <li>▪ Shared with specialist ecologists and conservation authorities involved in the review of the proposed development.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>Reflected in any mitigation or offset recommendations that may arise during the EIA process.</li> </ul>	
<b>Threat to Nature Reserve</b>				
Wed 2024/09/18	Leptotarsus, 30 are endemic, of the 4 species of Hexatoma, three are endemic and one is subendemic, four of the 8 species of the subgenus Acutipula in the genus Tipula are endemic	Vladimir Lantsov	This information will be: <ul style="list-style-type: none"> <li>Included in the Comments and Responses Report.</li> <li>Shared with the appointed faunal and freshwater specialists.</li> <li>Reflected in the biodiversity risk and cumulative impact sections of the Environmental Impact Report (EIR).</li> </ul>	EnviroAfrica
Sat 2024/09/07	In August 2017 and October 2018, I visited the private nature reserve Kleine Cederberg in South Africa with professor of botany Alexander Ivanov. My profession is entomology and I studied the insects of this park, including those in the floodplain of the Haudenbek River.	Valentin Tikhonov	Noted.	EnviroAfrica
<b>Tipuloid protection, Ancient Fauna conservation</b>				
Wed 2024/09/18	In connection with the fact that for many years I have been studying tipuloid dipterans and participated in the compilation of several regional Red Books (Northern Caucasus), the issues of protecting this group of dipteran insects are the closest to me and it is to them that I would like to draw attention.	Vladimir Lantsov	We acknowledge your request to draw attention specifically to the conservation needs of tipuloid dipterans, a group of insects that often receive limited consideration in conventional environmental assessments, despite their importance as bioindicators and their specialised habitat requirements. Your submission will be: <ul style="list-style-type: none"> <li>Shared with the ecological and botanical specialists currently contributing to the EIA process.</li> <li>Formally included in the Comments and Responses Report and biodiversity sensitivity review.</li> <li>Considered in any updates to the Environmental Management Programme (EMPr), particularly regarding wetland habitat protection and microhabitat preservation.</li> </ul>	EnviroAfrica
<b>Crane flies and species</b>				
Wed 2024/09/18	Crane flies (Tipuloidea) are a group of families of long-horned dipterans, the world fauna of which includes 15,726 species (Oosterbroek, 2024).	Vladimir Lantsov	This information will be: <ul style="list-style-type: none"> <li>Included in the Comments and Responses Report.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

			<ul style="list-style-type: none"> <li>▪ Shared with the appointed faunal and freshwater specialists.</li> <li>▪ Reflected in the biodiversity risk and cumulative impact sections of the Environmental Impact Report (EIR).</li> </ul>	
Wed 2024/09/18	In South Africa, 258 species of crane flies (Oosterbroek, l.c.) have been identified to date, and a certain proportion of these species certainly live in the Swartruggens Nature Reserve, part of which is located within the Kleine Cederberg Reserve.	Vladimir Lantsov	Your reference to the work of Oosterbroek (2024), noting that the world fauna of Tipuloidea includes 15,726 species, is noted. This information will be shared with the botanical, freshwater, and faunal specialists contributing to the Environmental Impact Assessment (EIA) and formally recorded in the Comments and Responses Report. Where applicable, it will provide recommendations in the Environmental Management Programme (EMPr) regarding habitat preservation, particularly for sensitive insect groups.	EnviroAfrica
Wed 2024/09/18	The regional fauna is characterized by an unusually high level of endemism, which is unprecedented for biotas and reaches, according to rough estimates, up to 80%.	Vladimir Lantsov	<p>We acknowledge your observation that endemism in the regional biota may reach levels as high as 80%, which is highly significant from a conservation and biodiversity management perspective. This information reinforces the need for careful consideration of ecological sensitivity during the Environmental Impact Assessment (EIA) process. The regional context, particularly within parts of the Greater Cederberg Biodiversity Corridor and Swartruggens Conservancy, is known to support a range of range-restricted and endemic species, including amphibians, reptiles, invertebrates, and small mammals. As part of the environmental assessment process:</p> <ul style="list-style-type: none"> <li>• The need for updated or expanded faunal surveys has been noted, including consideration of less mobile and often underrepresented taxa such as insects, herpetofauna, and small mammals.</li> <li>• Where high-endemism habitats are identified, the EIA team will explore avoidance or buffer zone strategies, in consultation with specialists.</li> <li>• Results will inform the Environmental Management Programme (EMPr), with actions tailored to reduce disturbance and monitor post-construction impacts.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

Wed 2024/09/18	A number of taxa are unique. Of the 8 species of the genus Baeoura, seven are endemic, of the 10 species of Austrolimnophila, 8 are endemic, of the 19 species of the genus Nephrotoma, 11 are endemic, of the 32 species of Leptotarsus, 30 are endemic, of the 4 species of Hexatoma, three are endemic and one is subendemic, four of the 8 species of the subgenus Acutipula in the genus Tipula are endemic	Vladimir Lantsov	<p>The high levels of endemism across multiple genera, including Baeoura, Austrolimnophila, Nephrotoma, Leptotarsus, Hexatoma, and Tipula (subgenus Acutipula), are scientifically significant and reinforce the ecological sensitivity of the broader Koue Bokkeveld area.</p> <p>These findings are consistent with the broader understanding that the Cape Floristic Region and surrounding transitional zones are global biodiversity hotspots. The presence of highly range-restricted taxa elevates the conservation value of intact habitats, especially riparian zones and seasonal wetlands, which support microhabitats essential for many of these species.</p> <p>While the direct project footprint is largely within transformed agricultural land, the environmental assessment process, particularly the Freshwater and Botanical Impact Assessments, has considered the potential for secondary impacts on surrounding biodiversity. Key mitigation measures include:</p> <ul style="list-style-type: none"> <li>• Avoiding intact natural habitat where feasible.</li> <li>• Ensuring abstraction occurs only during high-flow events, thereby minimising disruption to baseflows and aquatic microhabitats.</li> <li>• Rehabilitating disturbed riparian zones to support the recovery of native flora and invertebrate fauna.</li> <li>• Implementing biodiversity monitoring during and after construction to detect and address unforeseen impacts.</li> </ul> <p>The Environmental Management Programme (EMPr) will be updated to reflect this sensitivity, and your input will be formally recorded as part of the public participation process.</p>	EnviroAfrica
Wed 2024/09/18	The genera Limonia (2 species), Platylimnobia (5 species), Trichotrimicra (3 species), Dicranoptycha (2 species), Dolichopeza (17 species), Atarba (4 species), Idiognophomyia (3 species), Elephantomyia (9 species),	Vladimir Lantsov	<p>Your contribution has been formally recorded and will be:</p> <ul style="list-style-type: none"> <li>• Shared with the appointed faunal and freshwater specialists for further consideration.</li> </ul>	EnviroAfrica

## COMMENTS AND RESPONSE REPORT - TOEKA DAM

### Initial Comments received

	Geranomyia (7 species), Neolimnomyia (2 species), Ellipteroides (6 species), Eugnophomyia (3 species), Geranomyia (7 species), Idiognophomyia (3 species), Limnophila (3 species), Platylimnobia (5 species), Limnophilomyia (3 species) are completely endemic. Almost all of these species are confined to aquatic or near-aquatic habitats.		<ul style="list-style-type: none"> <li>• Included in the biodiversity and cumulative impact sections of the Environmental Impact Report (EIR);</li> <li>• Used to inform the development of the Environmental Management Programme (EMPr), particularly with respect to wetland habitat conservation and microhabitat protection.</li> </ul>	
Wed 2024/09/18	The endemic hygrophilous <i>Tipula</i> (Savtshenkia) <i>draconis</i> Alexander, 1964 is the only representative of this extensive subgenus in South Africa.	Vladimir Lantsov	<p>We acknowledge the particular ecological sensitivity and conservation importance of <i>T. draconis</i>. The presence or potential presence of species such as <i>T. draconis</i> will be considered in:</p> <ul style="list-style-type: none"> <li>• The refinement of biodiversity sensitivity maps.</li> <li>• The botanical and faunal verification surveys as part of the EIA process.</li> <li>• The development of site-specific mitigation and habitat protection measures within the Environmental Management Programme (EMPr).</li> </ul>	EnviroAfrica
Wed 2024/09/18	The entomofauna of South Africa is certainly one of the most unique on the African continent. The fauna includes numerous taxa, the phylogenetic relationships of which indicate their ancient origin. Their presence here is explained by the fact that they are the remains of groups that inhabited the ancient continent of Gondwana before its division into modern continents (Australia, Africa and South America).	Vladimir Lantsov	<p>We acknowledge that the South African entomofauna includes numerous relictual and endemic taxa. Your comment has been formally recorded and will inform both:</p> <ul style="list-style-type: none"> <li>• The biodiversity and cumulative impact sections of the Environmental Impact Report (EIR); and</li> <li>• Recommendations for further specialist faunal input and site-specific conservation measures in the Environmental Management Programme (EMPr).</li> </ul>	EnviroAfrica